FILED
OCT 24 2016
OFFICE OF THE CLERK

No. 14-1538

IN THE
# Court of the United States

LIFE TECHNOLOGIES CORPORATION; INVITROGEN IP HOLDINGS, INC.; APPLIED BIOSYSTEMS, LLC,

*Petitioners*,

*v.*

PROMEGA CORPORATION,

*Respondent.*

**ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT**

## BRIEF FOR RESPONDENT

MARK C. FLEMING
ERIC F. FLETCHER
JANINE M. LOPEZ
WILMER CUTLER PICKERING HALE AND DORR LLP
60 State Street
Boston, MA 02109

SETH P. WAXMAN
*Counsel of Record*
THOMAS G. SAUNDERS
KEVIN M. LAMB
WILMER CUTLER PICKERING HALE AND DORR LLP
1875 Pennsylvania Ave., NW
Washington, DC 20006
(202) 663-6000
seth.waxman@wilmerhale.com

## QUESTION PRESENTED

Whether the Federal Circuit correctly rejected petitioners' desired per se rule that one component can never constitute "a substantial portion of the components of a patented invention" under 35 U.S.C. § 271(f)(1).

## CORPORATE DISCLOSURE STATEMENT

Respondent Promega Corporation has no parent corporation and no publicly held company owns 10% or more of its stock.

## TABLE OF CONTENTS


Page

QUESTION PRESENTED ..... i

CORPORATE DISCLOSURE STATEMENT ..... ii

TABLE OF AUTHORITIES ..... v

INTRODUCTION ..... 1

STATEMENT ..... 4

A. The Technology And Parties ..... 4

B. Life Technologies' Infringement And District Court Proceedings ..... 6

C. Appellate Proceedings ..... 10

SUMMARY OF ARGUMENT ..... 12

ARGUMENT ..... 16

I. THE SUBSTANTIALITY INQUIRY UNDER § 271(f)(1) REQUIRES A CASE-SPECIFIC FACTUAL ANALYSIS, NOT A RIGID NUMERICAL THRESHOLD ..... 16

A. The Text Of Section 271(f) Supports A Case-Specific Factual Analysis Of Whether A Component Is A "Substantial Portion" Of The Invention's Components ..... 18

B. The History And Purpose Of Section 271(f) Support A Case-Specific Factual Analysis ..... 27

II. THE FEDERAL CIRCUIT'S CASE-SPECIFIC FACTUAL INQUIRY REFLECTS CONGRESSIONAL INTENT AND SOUND POLICY ..... 34

TABLE OF CONTENTS—Continued

Page

A. The Specific Intent Required For Active Inducement Protects Innocent Suppliers By Ensuring That Section 271(f) Reaches Only Culpable Actors ..... 34

B. A Strictly Quantitative Rule Would Lead To Absurd And Arbitrary Results ..... 40

III. THE CASE-SPECIFIC INQUIRY ADOPTED BY THE FEDERAL CIRCUIT CONCERNS ONLY DOMESTIC CONDUCT AND DOES NOT IMPLICATE THE PRESUMPTION AGAINST EXTRATERRITORIALITY ..... 44

IV. EVEN IF ITS INTERPRETATION WERE CORRECT, LIFE TECHNOLOGIES WOULD NOT BE ENTITLED TO JUDGMENT AS A MATTER OF LAW ..... 51

CONCLUSION ..... 54

## TABLE OF AUTHORITIES

### CASES

Page(s)

*Ali* v. *Federal Bureau of Prisons*, 552 U.S. 214 (2008) ..... 24, 27

*Apple Inc.* v. *Motorola, Inc.*, 757 F.3d 1286 (Fed. Cir. 2014), *overruled on other grounds by Williamson* v. *Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015) ..... 49

*Basic Inc.* v. *Levinson*, 485 U.S. 224 (1988) ..... 41

*Board of Trustees of Leland Stanford Jr. University* v. *Roche Molecular Systems, Inc.*, 563 U.S. 776 (2011) ..... 5

*Chiuminatta Concrete Concepts, Inc.* v. *Cardinal Industries, Inc.*, 145 F.3d 1303 (Fed. Cir. 1998) ..... 35

*Commil USA, LLC* v. *Cisco Systems, Inc.*, 135 S. Ct. 1920 (2015) ..... 35

*Deepsouth Packing Co.* v. *Laitram Corp.*, 406 U.S. 518 (1972) ..... *passim*

*Defenders of Wildlife* v. *Norton*, 258 F.3d 1136 (9th Cir. 2001) ..... 19, 24

*EEOC* v. *Arabian American Oil Co.*, 499 U.S. 244 (1991) ..... 44

*Edmonds Institute* v. *Babbitt*, 42 F. Supp. 2d 1 (D.D.C. 1999) ..... 6

*Fuji Photo Film Co.* v. *Jazz Photo Corp.*, 394 F.3d 1368 (Fed. Cir. 2005) ..... 35

**TABLE OF AUTHORITIES—Continued**

Page(s)

*Garcia* v. *United States*, 469 U.S. 70 (1984) ..... 23

*Global-Tech Appliances, Inc.* v. *SEB S.A.*, 563 U.S. 754 (2011) ..... 35

*Golden Blount, Inc.* v. *Robert H. Peterson Co.*, 438 F.3d 1354 (Fed. Cir. 2006) ..... 32

*Goulding* v. *United States*, 957 F.2d 1420 (7th Cir. 1992) ..... 19, 22

*Graham County Soil & Water Conservation District* v. *United States*, 559 U.S. 280 (2010) ..... 24

*Griffin* v. *Oceanic Contractors, Inc.*, 458 U.S. 564 (1982) ..... 40

*Harper & Row Publishers, Inc.* v. *Nation Enterprises*, 471 U.S. 539 (1985) ..... 20

*i4i Ltd. Partnership* v. *Microsoft Corp.*, 598 F.3d 831 (Fed. Cir. 2010), *aff'd*, 564 U.S. 91 (2011) ..... 32

*Insituform Technologies, Inc.* v. *CAT Contracting, Inc.*, 385 F.3d 1360 (Fed. Cir. 2004) ..... 35

*Matrixx Initiatives, Inc.* v. *Siracusano*, 563 U.S. 27 (2011) ..... 41

*Metro-Goldwyn-Mayer Studios Inc.* v. *Grokster, Ltd.*, 545 U.S. 913 (2005) ..... 31, 35

*Microsoft Corp.* v. *AT&T Corp.*, 550 U.S. 437 (2007) ..... *passim*

**TABLE OF AUTHORITIES—Continued**

Page(s)

*Morrison* v. *National Australia Bank Ltd.*, 561 U.S. 247 (2010) ..... 44, 47

*Neely* v. *Martin K. Eby Construction Co.*, 386 U.S. 317 (1967) ..... 53

*Northern Illinois Service Co.* v. *Perez*, 820 F.3d 868 (7th Cir. 2016) ..... 27

*Pacific Operators Offshore, LLP* v. *Valladolid*, 132 S. Ct. 680 (2012) ..... 32

*Patrick* v. *Burget*, 486 U.S. 94 (1988) ..... 52

*RJR Nabisco, Inc.* v. *European Community*, 136 S. Ct. 2090 (2016) ..... *passim*

*Rose Ocko Foundation, Inc.* v. *Lebovits*, 686 N.Y.S.2d 861 (App. Div. 1999) ..... 20

*Sims Lessee* v. *Irvine*, 3 U.S. (3 Dall.) 425 (1799) ..... 25

*Thorpe* v. *CERBCO, Inc.*, 676 A.2d 436 (Del. 1996) ..... 20

*Toshiba Corp.* v. *Imation Corp.*, 681 F.3d 1358 (Fed. Cir. 2012) ..... 35

*Warner-Jenkinson Co.* v. *Hilton Davis Chemical Co.*, 520 U.S. 17 (1997) ..... 36, 37

*Water Technologies Corp.* v. *Calco, Ltd.*, 850 F.2d 660 (Fed. Cir. 1988) ..... 35

*Waymark Corp.* v. *Porta Systems Corp.*, 245 F.3d 1364 (Fed. Cir. 2001) ..... 44

## TABLE OF AUTHORITIES—Continued

Page(s)

### INTERNATIONAL CASES

Case C-170/13, *Huawei Techs. Co.* v. *ZTE Corp.* (July 16, 2015), *available at* http://curia.europa.eu/juris/document/document.jsf?docid=165911&doclang=EN ..... 48

Case AT.39985, *Motorola* (Apr. 29, 2014), *available at* http://ec.europa.eu/competition/antitrust/cases/dec_docs/39985/39985_928_16.pdf ..... 48

### DOCKETED CASES

*Goulding* v. *United States*, No. 90-1788 (7th Cir.) ..... 22

### STATUTES, REGULATIONS, RULES, AND LEGISLATIVE MATERIALS

1 U.S.C. § 1 ..... 26

16 U.S.C. § 1539(b)(2)(B) ..... 20

17 U.S.C. § 107(3) ..... 20

26 U.S.C.
§ 4252 ..... 20
§ 7701(a)(36)(A) ..... 19

**TABLE OF AUTHORITIES—Continued**

Page(s)

35 U.S.C.
§ 271 ..... 39
§ 271(a) ..... 9, 10, 37, 52
§ 271(b) ..... *passim*
§ 271(c) ..... 13, 29, 30, 31, 32
§ 271(f) ..... *passim*
§ 271(f)(1) ..... *passim*
§ 271(f)(2) ..... *passim*
§ 284 ..... 8

37 U.S.C. § 419 ..... 20

42 U.S.C. § 1962d-14a(g)(1) ..... 20

21 C.F.R. § 210.3(b)(7)-(8) ..... 23

*Impropriety of Description "Made in U.S.A." for Kit with Substantial Amount of Foreign Components*, 31 Fed. Reg. 5125 (Mar. 30, 1966) ..... 23

Fed. R. Civ. P. 50(a) ..... 52

129 Cong. Rec.
E5778 (Nov. 18, 1983) ..... 30
S9005 (June 23, 1983) ..... 28

130 Cong. Rec.
H10,525 (Oct. 1, 1984) ..... 27, 28, 29, 30
H12,231 (Oct. 11, 1984) ..... 30
S14,446 (Oct. 11, 1984) ..... 29

H.R. Rep. No. 94-658 (1976) ..... 22

S. Rep. No. 98-663 (1984) ..... 28, 30, 39

**TABLE OF AUTHORITIES—Continued**

Page(s)

*Patent Law Improvements Act: Hearing on S. 1535 and S. 1841 Before the S. Subcomm. on Patents, Copyrights and Trademarks of the S. Comm. on the Judiciary*, 98th Cong. (1984) ..... 28, 29

Memorandum from Senator Mathias to Members of the Committee on the Judiciary (Sept. 27, 1984) ..... 38

**OTHER AUTHORITIES**

*American Heritage Dictionary of the English Language* (1978) ..... 18

Chisum, Donald S., *Normative and Empirical Territoriality in Intellectual Property: Lessons from Patent Law*, 37 Va. J. Int'l L. 603 (1997) ..... 38

DOJ & PTO, *Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments* (Jan. 8, 2013), *available at* https://www.justice.gov/sites/default/files/atr/legacy/2014/09/18/290994.pdf ..... 48, 49

Farrand, James R., *Territoriality and Incentives Under the Patent Laws: Overreaching Harms U.S. Economic and Technological Interests*, 21 Berkeley Tech. L.J. 1215 (2006) ..... 38

Guyer, Ruth L., & D.E. Koshland, Jr., *The Molecule of the Year*, 246 Science 1543 (Dec. 22, 1989) ..... 5

**TABLE OF AUTHORITIES—Continued**

Page(s)

Johnson & Johnson Consumer Inc., *Regular Strength TYLENOL®, available at* https://www.tylenol.com/products/tylenol-regular-strength-tablets#ingredients (last visited Oct. 24, 2016) ..... 23

Malaguti, Michael J., *Substantial Confusion: The Use and Misuse of the Word "Substantial" in the Legal Profession,* 52 N.H. Bar J. 6 (Autumn 2011) ..... 18

*Nobel Prize in Chemistry 1993, available at* http://www.nobelprize.org/nobel_prizes/chemistry/laureates/1993 (last visited Oct. 24, 2016) ..... 5

*Random House College Dictionary* (1982) ..... 18

*Webster's Third New International Dictionary of the English Language Unabridged* (1981) ..... 18

IN THE

# Supreme Court of the United States

No. 14-1538

LIFE TECHNOLOGIES CORPORATION; INVITROGEN IP HOLDINGS, INC.; APPLIED BIOSYSTEMS, LLC,

*Petitioners,*

*v.*

PROMEGA CORPORATION,

*Respondent.*

**ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT**

## BRIEF FOR RESPONDENT

## INTRODUCTION

There is no dispute that Promega's patent is valid, that Life Technologies was aware of the patent, and that Life Technologies knew each of its DNA test kits practiced the patent. The only remaining issue is whether Life Technologies can avoid liability for active inducement under 35 U.S.C. § 271(f)(1) by engrafting a rigid, purely numerical requirement onto the statute that is contrary to its text, history, and purpose. This Court should reject that attempt.

Section 271(f)(1) establishes liability for those who "suppl[y] ... from the United States all or a substantial

portion of the components of a patented invention" in a manner that "actively induce[s]" their combination into the patented invention abroad. The court of appeals correctly recognized that whether a defendant has supplied "a substantial portion of the components of a patented invention" from the United States is a factual question for the jury that takes into account both quantity and relative importance. Over the course of an eight-day trial, witnesses for both parties testified that Life Technologies supplied from the United States a "main," "major," and "critical" component of the five-component test kits, and the jury heard considerable testimony about how the test kits operated and the key component's role. The jury found Life Technologies liable for infringement, and the court of appeals correctly held that the jury's verdict was supported by substantial evidence, rejecting Life Technologies' request to impose a per se bar against a single important or central component amounting to a "substantial portion" of a patented invention's components.

This Court should likewise decline Life Technologies' invitation (at 4) to redefine "substantial portion" in purely quantitative terms as "a large percentage closely approximating all." Congress did not require the supply of "a large percentage," "nearly all," or even "many" components in § 271(f)(1). Instead, Congress required the supply of "a substantial portion," where "portion" simply identifies "a part of a whole" and "substantial" has the well-recognized meaning of "considerable in importance [or] value." In other words, Congress avoided exclusively quantitative terms, opting for a term that can have a qualitative as well as a quantitative meaning.

Nor does the legislative history support Life Technologies' position. Rather, it demonstrates that Con-

gress modeled § 271(f)(1) on the inducement rule of § 271(b) to prevent domestic manufacturers from weakening U.S. patents through cross-border machinations seeking to profit from the foreign shipment of important components. Life Technologies' proposed rule would contravene Congress's purpose by allowing domestic manufacturers with knowledge of a patent and intended infringement to supply the most valuable components of an invention to foreign customers with impunity.

Life Technologies and the government claim to find support for their strictly numerical rule in the presumption against extraterritoriality. But that canon of interpretation has no purchase here. Life Technologies' liability under § 271(f)(1) depends solely on its domestic conduct and its specific intent; the decision below did not impose any liability based on foreign conduct. Life Technologies and the government further suggest that the presumption applies because § 271(f)(1) may affect global commerce. Even if the presumption against extraterritoriality were transformed into such a broad policy statement, it would not support the adoption of a strictly quantitative rule here. By ignoring the relative importance of various components, a rigid quantitative construction would favor domestic suppliers of a single critical component over those who supply multiple, unimportant components. Under such a rule, liability would turn on contingencies of assembly—such as whether a device requires more than one of the same component—rather than the component's function relative to the patent owner's invention.

Life Technologies' policy arguments also suffer from a notable flaw: They ignore the fact that no liability for active inducement under § 271(f)(1) can be imposed without specific intent—a requirement that pro-

tects innocent manufacturers who are unaware of a patent or their customers' intended manufacture of the patented invention. Tellingly, neither Life Technologies nor the government cites any examples of the expansive liability they hypothesize.

Instead, the facts of this case exemplify the intended scope of the statute. Life Technologies was indisputably aware of Promega's patent. It supplied from the United States an important component of the patented invention (and, for several of the kits, multiple components). It induced assembly of the kits at its facility abroad, knowing that the kits practiced every element of the patent claim. And it profited significantly from its infringement. That is precisely the type of conduct Congress determined should be regulated by U.S. patent law.

The Federal Circuit's judgment should be affirmed.

## STATEMENT

### A. The Technology And Parties

DNA is a molecule made up of two strands of nucleotides. Within DNA, particular nucleotide sequences—called short tandem repeats ("STRs")—are repeated at specific regions called "loci." Pet. App. 2a-3a. The number of repeated sequences at any given STR locus varies within the human population. *Id.* 3a. While no single locus contains enough variation within the population to reliably identify an individual, matching multiple STR loci can result in reliable and statistically significant identification. *Id.* STR profiling can be used, among other things, to identify kinship. JA122-123. This case involves the foundational patent covering kits used for STR profiling.

Promega and Life Technologies are direct competitors in a two-supplier market for DNA test kits that enable STR profiling. Dist. Ct. Dkt. 530, at 14. Such kits have a wide variety of applications, including forensic identification, paternity testing, medical treatment, and research. A6121.[1] The kits allow users to make "copies of the [STR] loci of interest in order to obtain a detectable amount of DNA for analysis"—a process known as "'amplification.'" Pet. App. 3a. The amplification process is done using polymerase chain reaction (PCR), in which "a pair of 'primers' ... marks the start and finish" of the STR locus to be copied, and an enzyme, such as *Taq* polymerase, then replicates the strand of nucleotides between the primers. *Id.*

The development of easy-to-use PCR technology transformed medicine, forensics, and the study of biology.[2] In particular, the identification of *Taq* polymerase for use in PCR was essential to widespread adoption of the technology. In 1989, *Science* named *Taq* polymerase the first "Molecule of the Year" in the journal's 109-year history, explaining that "'Taq polymerase' ... continues working almost indefinitely despite the heating steps" of the PCR process, which "improved the yield, generated more specific and longer products, and facilitated automation." Guyer & Koshland, Jr., *The Mole-*

---

[1] "A" refers to the Court of Appeals Joint Appendix.

[2] Kary B. Mullis, the author of an article cited by Life Technologies (at 8), received the 1993 Nobel Prize in Chemistry "'for his invention of the polymerase chain reaction method.'" *Nobel Prize in Chemistry 1993*, *available at* http://www.nobelprize.org/nobel_prizes/chemistry/laureates/1993 (last visited Oct. 24, 2016); *see also Board of Trs. of Leland Stanford Jr. Univ.* v. *Roche Molecular Sys., Inc.*, 563 U.S. 776, 780 (2011) (describing PCR as "[a] Nobel Prize winning technique").

*cule of the Year*, 246 Science 1543, 1543 (1989); *see also Edmonds Inst.* v. *Babbitt*, 42 F. Supp. 2d 1, 6 (D.D.C. 1999) ("Taq polymerase ... [is] ideally suited to the chemical processes used by scientists to copy DNA material").

Promega, a privately held biotechnology company based in Madison, Wisconsin, is the exclusive licensee of U.S. Reissue Patent No. RE37,984, known as the "Tautz patent." Tautz is considered a foundational patent in STR technology because the 1988 application on which it is based was the first to describe STR loci. JA112-127; A1928-1929, 2004.

Claim 42 of the Tautz patent covers "a kit for testing at least one STR locus that contains (1) a mixture of primers; (2) a polymerizing enzyme such as *Taq* polymerase; (3) nucleotides for forming replicated strands of DNA; (4) a buffer solution for the amplification; and (5) control DNA." Pet. App. 7a; *see also* JA127. Life Technologies has never challenged the Tautz patent's validity.[3]

### B. Life Technologies' Infringement And District Court Proceedings

In 2006, Promega and defendant Applied Biosystems (now a wholly owned subsidiary of Life Technologies) entered into a cross-license agreement that allowed Life Technologies to sell kits practicing the Tautz patent for use in "Forensics and Human Identity Applications." Pet. App. 9a & n.3. The field-of-use terms in the license forbade Life Technologies from selling kits for clinical and research uses. *Id.* 37a;

---

[3] The Tautz patent expired in 2015, so the issues in this case concern Life Technologies' liability for past acts of infringement.

A1868-1869; *see also* A815-816, 819, 905. At the time, Promega was told that Life Technologies' kits were all made in the United States. Dist. Ct. Dkt. 545, at 27.

In clear violation of the parties' cross-license agreement, Life Technologies engaged in a concerted campaign to sell its kits into unlicensed fields. Life Technologies helped educate customers about infringing uses for its kits and trained customers' employees on how to use its kits in unlicensed fields. A6591-6593, 6599-6600, 9158-9159. It knowingly sold to customers engaged in medical or research uses clearly outside the scope of the license. A6544-6545, 6616-6617, 6624, 9120. It even encouraged customers "to drop Promega and use [Life Technologies'] kits for" unlicensed purposes. A6594-6595. Indeed, an internal market assessment shared with Life Technologies' sales personnel identified one unlicensed field as offering "a 250 million dollar opportunity" for Life Technologies, concluding with the words "Happy selling." Dist. Ct. Dkt. 542, at 37, 38.

After raising the issue of unlicensed sales and receiving an unsatisfactory response, Promega sued Life Technologies for infringement of the Tautz patent and four other Promega patents.[4] The parties filed competing motions for summary judgment, and the district court concluded that Life Technologies' "sales of its STR kits for [unlicensed] uses ... directly infringed claim 42 of the Tautz patent." Pet. App. 9a; *see also* JA129-130. Life Technologies later agreed that the district court's ruling of infringement applied to a variety of additional STR kits. JA131-132. Life Technologies has never challenged the district court's finding that all

---

[4] Life Technologies was found to infringe claims of the four Promega patents, but those patents were held invalid by the Federal Circuit. Pet. App. 2a, 9a-10a. They are not at issue here.

of its accused STR kits practiced claim 42 of the Tautz patent.

The district court then presided over a jury trial on willfulness and damages, in which Promega sought its lost profits due to Life Technologies' infringing sales. 35 U.S.C. § 284. Life Technologies conceded in its opening statement at trial that there "was technically an infringement" and that "[t]he law says [Promega is] entitled to be compensated for that infringement." A5127. Life Technologies also stipulated that its worldwide sales of accused STR kits totaled almost $708 million. JA166.

Promega presented evidence of Life Technologies' extensive infringing sales in the United States for unlicensed uses. *See* Promega C.A. Br. 14-18 (summarizing evidence). Promega also presented evidence of damages based on Life Technologies' supply of a "substantial portion" of the components of the patented invention in a manner that induced combination by workers at Life Technologies' facility in the United Kingdom of kits that would have infringed claim 42 of the Tautz patent if manufactured in this country. 35 U.S.C. § 271(f)(1).

It was undisputed that Life Technologies supplied the *Taq* polymerase for all of its STR kits from the United States. Pet. App. 34a & n.15; JA151-154. The record also contained evidence regarding the outsized importance of *Taq* polymerase. Life Technologies' own witness admitted that *Taq* polymerase is a "'main' and 'major'" component of its kits. Pet. App. 34a. Another witness described *Taq* polymerase as a "critical component ... used in the polymerase chain reaction to ... amplify" the original DNA sample. JA146. A third witness, in explaining the technology to the jury, testified that *Taq* polymerase "make[s] the new DNA" in the

amplification process, which is "a key step in the technology." JA137, 138.

Life Technologies' witness further admitted that it supplied from the United States not only the *Taq* polymerase, but also multiple primers for at least three of its accused STR kits—Identifiler, Identifiler Direct, and Identifiler Plus. JA149-151 (identifying 10 primers shipped from the United States); JA154-155, 162-163. Those three kits accounted for a significant amount of Life Technologies' sales. Promega C.A. Br. 53-54; A7180-7186, 7188-7192, 7196-7204, 9323-9324.[5]

The jury determined that all of Life Technologies' sales were attributable to infringing acts in the United States under § 271(a) or § 271(f) and that 10% of those sales were for unlicensed uses. JA165-167. On that basis, the jury concluded that Promega was entitled to $52 million in lost profits. JA167. The jury also found that Life Technologies' infringement was willful. *Id.*

Life Technologies sought judgment as a matter of law, contending, among other things, that Promega had "not [met] the burden of showing all or a substantial portion of the components" of Life Technologies' kits were supplied from the United States. A6505. Specifically, Life Technologies advocated for a bright-line rule that "at least two components must be supplied from the U.S." A2304. Consistent with this view, Life Technologies conceded that it could be held liable under

---

[5] The district court erroneously stated that Promega "'did not attempt to quantify the sales of those accused products'" for which multiple components were shipped from the United States. Pet. Br. 11 n.2 (quoting Pet. App. 51a). Life Technologies tellingly does not defend that error, nor could it, because the record, as the citations in text show, contained extensive evidence quantifying sales of the three Identifiler kits.

§ 271(f)(1) for the three Identifiler kits for which Life Technologies supplied at least two components from the United States. A2303 ("two components of the claimed invention (primers and PCR enzyme) were supplied from the U.S." for the three Identifiler kits); A6505 ("for the Identifiler Kit ... there is evidence that could go to the jury"); *see also* Pet. App. 57a (assuming—"[b]ecause defendants do"—that "two components are a substantial portion").

The district court granted Life Technologies judgment as a matter of law. First, the court held that § 271(f)(1) "requires the involvement of another, unrelated party to 'actively induce the combination of components'" and that Promega had not established the existence of such a party. Pet. App. 23a, 59a-63a. Second, the district court ruled that Promega failed to prove Life Technologies had supplied a "'substantial portion of the components'" of the non-Identifiler kits because the statute required "at least two components to be supplied from the United States." *Id.* 23a, 54a-58a.

### C. Appellate Proceedings

The Federal Circuit reversed the district court's grant of judgment as a matter of law and remanded for further proceedings. Pet. App. 37a-38a. The court held that Promega had proved and quantified infringing sales in the United States under § 271(a). *Id.* 35a. The court also held that "substantial evidence supports the jury's verdict that [Life Technologies] is liable for infringement under § 271(f)(1) for shipping the *Taq* polymerase component of its accused genetic testing kits to its United Kingdom facility." *Id.* 28a. The court explained that "there are circumstances in which a party may be liable under § 271(f)(1) for supplying or causing to be supplied a single component for combination out-

side the United States." *Id.* The court rejected the district court's holding—and Life Technologies' requested rule—that "a single component supplied from the United States, no matter how important or central to the invention, can never constitute 'a substantial portion of the components of a patented invention.'" *Id.* 34a. Instead, the court explained that "the ordinary meaning of 'substantial portion'" focuses on whether a component is "'important' or 'essential'" and does not "require[] a certain quantity." *Id.* 28a-29a.

Recognizing that the question of infringement under § 271(f)(1) is a question of fact for the jury, the court carefully reviewed the record before concluding that "substantial evidence ... support[s] the jury's conclusion that the *Taq* polymerase supplied by [Life Technologies] from the United States to its foreign facility is a 'substantial portion' of the components" of the patented invention. Pet. App. 33a. The court reiterated that *Taq* polymerase is one of the invention's five components, it was undisputedly supplied from the United States, and it is essential to the PCR reaction at the heart of the invention. *Id.* 33a-34a & n.15. The court also noted the case-specific admission by Life Technologies' witness that *Taq* polymerase is a "'main' and 'major' component[] of the accused kits." *Id.* 34a. Having concluded that the jury's verdict was supported by substantial evidence for all the accused kits, the court did not separately analyze the three Identifiler kits for which Life Technologies supplied multiple components from the United States.[6]

---

[6] The Federal Circuit also held that "no third party is required" for infringement under § 271(f)(1). Pet. App. 24a. Chief Judge Prost dissented on that issue but did not address the question now before this Court. *Id.* 39a & n.1.

Life Technologies' petition for rehearing en banc was denied without dissent. Pet. App. 67a-68a. This Court granted certiorari on Life Technologies' second question presented, which challenges whether supply of a single component from the United States may ever lead to liability under § 271(f)(1). The Court denied Life Technologies' petition insofar as it challenged the Federal Circuit's holding that no third party was required for inducement liability under § 271(f)(1).

## SUMMARY OF ARGUMENT

1. Section 271(f)(1)'s plain language calls for a fact-intensive, case-specific inquiry into whether what is supplied from the United States constitutes "a substantial portion of the components" of the patented invention. There is no reason to confine that inquiry to quantitative substantiality, while excluding considerations of qualitative substantiality. A "portion" is simply "a part of a whole," and, as the parties and the government agree, the term "substantial" can mean considerable in amount and/or importance. This focus on both the quantitative and qualitative significance of the matter supplied from the United States is supported not only by the text of § 271(f)(1), but also by judicial interpretations of similarly worded statutes.

A single component that is very important to the overall invention may therefore constitute a "substantial portion" of the invention's components under appropriate circumstances. As the Federal Circuit correctly held, the record in this case—indeed the testimony of Life Technologies' own witness—amply permitted the jury to find *Taq* polymerase sufficiently important to meet this standard.

To escape that reasonable finding, Life Technologies asks the Court to adopt a rigid, bright-line rule with no foundation in the statutory text: Section 271(f)(1) does not employ strictly quantitative language that would establish Life Technologies' desired rule, such as "a large percentage" or "a large number." And neither the term "all" nor the plural "components" elsewhere in § 271(f)(1) limits the plain meaning of "substantial portion" to quantity alone.

Life Technologies' multiple-component rule likewise finds no support in the legislative history. Although Congress was moved to act by this Court's decision in *Deepsouth Packing Co.* v. *Laitram Corp.*, 406 U.S. 518 (1972), the law Congress enacted undisputedly reached beyond the facts of that case. In enacting § 271(f), Congress's paramount concern was to prevent U.S. manufacturers from evading the operation of U.S. patent law by exporting components abroad with the *intent* to induce the making of a patented invention. Nowhere did Congress suggest that its concern was limited to manufacturers who knowingly supplied *more than one* component abroad. And the legislative history refutes Life Technologies' argument that Congress intended § 271(f)(2) to be the sole provision governing the supply of a single component. Rather, Congress modeled § 271(f)(1) and (2) on existing provisions of the Patent Act that prohibit inducement and contributory infringement, respectively. 35 U.S.C. § 271(b), (c). Just as a single act can give rise to liability for both inducement and contributory infringement, the supply of a single component can give rise to liability under both § 271(f)(1) and (2) if the component is sufficiently important, is supplied in a manner that actively induces infringement abroad, *and* is "especially made or espe-

cially adapted" for use in the patented invention (and the defendant knows all this). *Id.* § 271(f)(2).

2. The Federal Circuit's interpretation reflects sound patent policy. Life Technologies claims that a strictly quantitative rule is necessary to avoid unduly expansive liability for innocent U.S. suppliers of commodity components. That argument wholly ignores § 271(f)(1)'s principal safeguard against unpredictable liability: the specific intent required to establish active inducement. A defendant must both know of the patent and intend that the components it supplies will be combined in a way that practices the patent. This intent requirement protects innocent suppliers. Indeed, it has confined liability under § 271(f)(1) to the rare case in which a defendant like Life Technologies deliberately and knowingly seeks to get away with infringement.

Life Technologies' proposed rule would lead to absurd and arbitrary results Congress could not have intended. For example, a rule requiring the supply of more than one component could allow the supplier of an invention's single most important component to evade liability entirely—even where that invention has few components and the supplier acted with the requisite intent—if the component supplied is not unique to the invention. Even worse, a rule requiring the defendant to supply nearly all the invention's components would allow multiple suppliers to collude to supply all of the components of a patented invention for assembly abroad, fully intending the resulting product to infringe; as long as each supplier exported only one or two components, the group could engage in this intentional conduct without fear of liability. Moreover, the government concedes (at 26) that determining whether a specific number of domestically supplied components amounts to a sufficiently large percentage under a

"nearly all" standard would create "line-drawing problems" for which the government has no solution.

3. Contrary to Life Technologies' argument, the question presented here does not implicate the presumption against extraterritoriality. As this Court has explained, there is no extraterritoriality concern "[i]f the conduct relevant to the statute's focus occur[s] in the United States, ... even if other conduct occur[s] abroad." *RJR Nabisco, Inc.* v. *European Cmty.*, 136 S. Ct. 2090, 2101 (2016). Here, Life Technologies' liability under § 271(f)(1) depends solely on its domestic conduct—its intentional supply *from the United States* of an important, physical component of the patented invention. This situation is easily distinguishable from *Microsoft Corp.* v. *AT&T Corp.*, 550 U.S. 437 (2007), which held that § 271(f) did not apply to *foreign-made* copies of a master version of software that had originated in the United States. In *Microsoft*, the U.S.-made master was never actually used in an infringing device. By contrast, every unit of *Taq* polymerase that Life Technologies shipped from the United States powered a kit that practiced the Tautz patent.

Even assuming the statute must be read to "minimize[] its impact on foreign conduct" (U.S. Br. 11), there is no evidence that a rigid, quantitative rule accomplishes that goal. Neither Life Technologies nor the government explains why "foreign conduct" will be affected more by prohibiting deliberately infringing shipments from the United States of a single component of central importance than by prohibiting shipment of multiple minor components. Accordingly, they offer no reason based on respect for foreign sovereigns to prefer a construction that depends solely on quantity over a construction that also factors in a given component's importance to the invention as a whole.

4. Finally, even if the Court adopts a strictly quantitative interpretation of § 271(f)(1), Life Technologies would not be entitled to judgment as a matter of law. Life Technologies admitted at trial that three of its best-selling Identifiler kits were made using *multiple* components supplied from the United States. And it expressly conceded on that basis that whether it supplied a "substantial portion" of the components of *those* kits from the United States was a question for the jury. Thus, even if the Court accepts Life Technologies' interpretation of the statute, the appropriate disposition would be to remand the case for further proceedings, not to enter judgment as a matter of law.

## ARGUMENT

### I. THE SUBSTANTIALITY INQUIRY UNDER § 271(f)(1) REQUIRES A CASE-SPECIFIC FACTUAL ANALYSIS, NOT A RIGID NUMERICAL THRESHOLD

Section 271(f)(1) prohibits a party from supplying "all or a substantial portion of the components of a patented invention" from the United States in a manner that actively induces their combination into the patented invention abroad. After weighing all the evidence presented over eight days of trial, the jury in this case determined that this standard was met. That case-specific factual finding has ample support in the record and is entitled to deference on appeal.

Life Technologies can overturn the jury's verdict *only* by manufacturing a rule focused exclusively on the number of components supplied from the United States. In the proceedings below, Life Technologies contended that a single component—no matter how important—can never be a "substantial portion" of an invention's components, and that a defendant must supply "at least two components" from the United States

to be liable under § 271(f)(1). A2303; Pet. App. 51a. Before this Court, Life Technologies urges a much more restrictive interpretation that directly conflicts with its prior concession that it could be liable for supplying two components of its Identifiler kits. *Supra* p. 9. Under its new interpretation—which was never argued to the district court or the court of appeals—Life Technologies could only be found liable if it supplied from the United States "a large percentage closely approximating all" of the components. Pet. Br. 4.

Neither formulation of Life Technologies' proposed rule can be reconciled with the text, history, or purpose of the statute. Section 271(f)(1) does not require a party to supply "multiple components" from the United States. Nor does it require the supply of "a large number," "a high percentage," or even "most" of the components of a patented invention—language that would plainly require a strictly numerical approach. The statute instead extends liability to any party that supplies "all *or a substantial portion*" of the invention's components. The statute's text and legislative history confirm that whether a given portion of components is "substantial" depends not only on the number of components involved, but also on their qualitative importance or value to the invention as a whole. As the Federal Circuit held, a single component, if sufficiently "'important' or 'essential'" to the invention, can amount to a "'substantial portion'" under the statute as properly construed. Pet. App. 28a-29a.

### A. The Text Of Section 271(f) Supports A Case-Specific Factual Analysis Of Whether A Component Is A "Substantial Portion" Of The Invention's Components

Life Technologies' proposal ignores the commonly accepted definitions of the words "substantial" and "portion." A "portion" is simply "a part of any whole." *Random House College Dictionary* 1034 (1982); *see also American Heritage Dictionary of the English Language* 1022 (1978). A portion of a set of components could be one component or multiple components; the use of the term "portion" does not, standing alone, require a particular quantity.

By the plain text of the statute, supplying a "portion" of an invention's components—whether one component or many—is sufficient to give rise to liability if the portion is "substantial." As all recognize (Pet. Br. 16; U.S. Br. 12), the term "substantial" can have both a qualitative and quantitative meaning: It means "[c]onsiderable in importance, value, degree, amount, or extent." *American Heritage Dictionary* 1284; *see also Random House College Dictionary* 1310 ("of ample or considerable amount, quantity, size, etc." or "of real worth, value, or effect"); *Webster's Third New International Dictionary of the English Language Unabridged* 1817 (1981) ("of considerable worth or value; vital; important" or "of considerable size or amount; large"); Malaguti, *Substantial Confusion: The Use and Misuse of the Word "Substantial" in the Legal Profession*, 52 N.H. Bar J. 6, 8 (Autumn 2011) (describing the modern and most prevalent definition of "substantial" as "'of considerable importance, size, or worth'"). Consistent with that broad definition, determining whether matter supplied from the United States is a "substantial portion" of the invention's components turns on

*both* the number of components supplied *and* their qualitative importance and value relative to the invention as a whole.

This approach is consistent with judicial interpretations of similar language in many other statutes. When interpreting such language, courts have engaged in fact-intensive, case-by-case analyses of both quantitative and qualitative substantiality. No court has held that to be "substantial," a "portion" must consist of more than one item, or that it must amount to a "quantitatively large percentage" (Pet. Br. 18) or "something close to all" (U.S. Br. 26) of the whole.

The Internal Revenue Code, for example, defines a "tax return preparer" as a person who prepares all or "a substantial portion of a return or claim for refund." 26 U.S.C. § 7701(a)(36)(A). It is well-accepted that a single entry may constitute a "substantial portion" of the return—and to determine whether any given entry meets this test, the court engages in a case-specific assessment of the entry's length and complexity relative to the document as a whole. *See Goulding* v. *United States*, 957 F.2d 1420, 1425-1426 (7th Cir. 1992). Similarly, under the Endangered Species Act, an endangered species is one that faces a threat of extinction in "all or a significant portion of its range." 16 U.S.C. § 1539(b)(2)(B). Here, too, whether a given percentage of a species' habitat is a "significant portion of its range" is determined "case by case." *Defenders of Wildlife* v. *Norton*, 258 F.3d 1136, 1143 (9th Cir. 2001). There is no bright-line percentage required; the inquiry is instead whether there are "major" geographic areas in which the species now faces a threat of extinction. *Id.* at 1145. Finally, in determining whether use of a copyrighted work amounts to "fair use," the Copyright Act requires courts to consider "the amount and sub-

stantiality of the portion used." 17 U.S.C. § 107(3). Determining whether a portion is substantial requires a "qualitative [e]valu[ation] of the copied material." *Harper & Row Publishers, Inc.* v. *Nation Enters.*, 471 U.S. 539, 564-566 (1985).

Even in statutes employing the phrase "substantially all"—which is much closer to Life Technologies' preferred rule—"substantial" is understood to encompass both quantitative and qualitative aspects. For example, under Delaware law, whether the sale of a corporation's assets amounts to a sale of "all or substantially all" of the assets turns "'not [on] the size of a sale alone, but also [on] its qualitative effect upon the corporation.'" *Thorpe* v. *CERBCO, Inc.*, 676 A.2d 436, 444 (Del. 1996). Similarly, under New York law, a single property can amount to "all or substantially all" of a nonprofit's assets if the property is its "largest, most significant, and single most valuable possession." *Rose Ocko Found., Inc.* v. *Lebovits*, 686 N.Y.S.2d 861, 864 (App. Div. 1999).

The statutes cited by Life Technologies are not to the contrary. Pet. Br. 18 (citing 42 U.S.C. § 1962d-14a(g)(1); 37 U.S.C. § 419; 26 U.S.C. § 4252). To be sure, all of the statutes contemplate some amount or quantity—an amount of hydroelectric power, a number of hours, and a number of people, respectively. But the statutes on their face say nothing about the question presented in this case, which is how to determine whether a given amount or quantity qualifies as "substantial." Life Technologies has not pointed to, and Promega has not found, any judicial decision weighing in on this question with respect to any of these statutes. Even if Life Technologies were correct that the statutes are best interpreted to require the portion to be a quantitatively large percentage of the whole, the fun-

damental differences among the statutes weaken any analogy to § 271(f)(1). Specifically, the statutes on which Life Technologies relies all involve homogeneous units that do not vary in qualitative importance: watts of hydroelectric power, hours in a day, and people living in a specific area. The same is not true of the components of a patented invention, which can differ considerably in their significance.

The text of § 271(f)(1) is thus consistent with a case-specific analysis of both the number of components supplied and their importance to the patented invention. As the Federal Circuit properly held, in the right circumstances, a single component can be a "substantial portion" of the invention's components if it is sufficiently important to the overall invention. Pet. App. 28a-29a. The determination whether that is the case is fact intensive and within the province of the jury.

The government's principal argument (at 14-15) consists of a series of examples purporting to show that it would be "strange" in some contexts to refer to a single item as a "substantial portion" of a larger set. For example, the government contends (*id.*) that it would be "odd" to refer to a single car part as a "'substantial portion of the parts of a car,'" to a single act as a "'substantial portion of the acts of the show,'" or to a single entry on a tax return as a "'substantial portion of the entries.'" All of those examples miss the mark. A car has tens of thousands of parts, so the likelihood that a single part is sufficiently important to be a "substantial portion" is small. A play may have only four acts, but the acts are likely to be relatively equal in length and importance. And a single entry on a tax return—when sufficiently important—may well be considered a "substantial portion of the entries" on the return. Congress recognized in enacting the definition of a "tax return

preparer" that entries on a tax return can vary significantly in "'length and complexity.'" *Goulding*, 957 F.2d at 1426 (quoting H.R. Rep. No. 94-658, at 275 (1976)). The government itself has squarely rejected the view that a single entry can never constitute a "substantial portion" of a tax return, *id.*, decrying "the fallacy of such a construction." U.S. Br. 36, *Goulding*, No. 90-1788 (7th Cir. Nov. 6, 1990). As the government argued in *Goulding*, "[s]uch a limited construction of the term 'substantial portion' would be entirely mechanical" and would artificially ignore the importance of certain entries: "Obviously, a $200,000 deduction is not to be dismissed as *de minim*[*i*]*s* simply because it constitutes a single entry." *Id.* 36, 38; *see also id.* 38 (arguing that a "wooden concept of what is 'substantial' would make an unwarranted inroad on the proper scope of the [statute]").

Similarly, a single component might amount to a "substantial portion" of an invention's components where (1) the invention has only a handful of parts and (2) the parts are of varying degrees of importance to the invention as a whole. More analogous examples make clear that it will often be appropriate to refer to a single item as a substantial portion of the broader set. If a person holds five assets, one of which singlehandedly accounts for 65% of his net worth, that asset would appropriately be described as a "substantial portion of the assets in his portfolio." Similarly, if a guacamole recipe calls for three ingredients—an avocado, lime juice, and salt—the avocado would naturally be considered "a substantial portion of the ingredients of the recipe." Finally, and perhaps most relevant here, a common over-the-counter pain medication may consist of six ingredients total—one critical ingredient (acetaminophen) and five inactive ingredients that are, by

definition, not important to the therapeutic value of the drug. 21 C.F.R. § 210.3(b)(7)-(8).[7] It is neither "strange" nor "odd" (U.S. Br. 15) to conclude under these circumstances that acetaminophen constitutes a "substantial portion of the ingredients of the drug."

Life Technologies (at 18) and the government (at 15) contend that Congress's use of the word "all" in § 271(f)(1) suggests that the term "substantial portion" is best read to mean "nearly all" of the components. But the use of the disjunctive "or" presumptively signals Congress's intent to give the two statutory terms—"all" and "substantial portion"—"their separate, normal meanings." *Garcia* v. *United States*, 469 U.S. 70, 73 (1984). The normal meaning of "substantial portion" is by no means synonymous with "nearly all." On the contrary, the Federal Trade Commission previously determined that only two of twenty components of a toy toolkit amounted to a "substantial portion" of the toy's components. *Impropriety of Description "Made in U.S.A." for Kit with Substantial Amount of Foreign Components*, 31 Fed. Reg. 5125 (Mar. 30, 1966).

Moreover, the *noscitur a sociis* canon does not narrow the meaning of a statutory term unless the statute provides "strong[] contextual cues" that Congress intended that result. *Ali* v. *Federal Bureau of Prisons*, 552 U.S. 214, 221 (2008); *see id.* at 226 (distinguishing a prior case that narrowed the statutory phrase "'any election'" because it was "closely surrounded by six specific references to gubernatorial elections"); *see also*

---

[7] *See* Johnson & Johnson Consumer Inc., *Regular Strength TYLENOL®*, *available at* https://www.tylenol.com/products/tylenol-regular-strength-tablets#ingredients (last visited Oct. 24, 2016).

*Graham County Soil & Water Conservation Dist.* v. *United States*, 559 U.S. 280, 288 (2010) ("'[t]hat a word may be known by the company it keeps is ... not an invariable rule, for the word may have a character of its own not to be submerged by its association'").

The statute here provides no cues demanding that "substantial portion" be understood as similar in meaning to "all." Courts interpreting similarly worded statutes have given the term "substantial portion" its ordinary meaning, without concluding that the term must mean something close to "all." *E.g.*, *Defenders of Wildlife*, 258 F.3d at 1143-1144. Nor does "all" impart a strictly numerical cast to the entire provision, as Life Technologies argues. The use of "all" is fully consistent with the Federal Circuit's interpretation of the statute because the supply of "all ... the components" necessarily encompasses the supply of all the *important* ones as well.

Life Technologies' final textual argument—based on the use of the plural "components" throughout § 271(f)(1)—is likewise misplaced. Read in full, § 271(f)(1) imposes liability on a defendant who supplies "all or a substantial portion of *the components of a patented invention*, where *such components* are uncombined in whole or in part, in such manner as to actively induce the combination of *such components* outside of the United States in a manner that would infringe if such combination occurred within the United States." As the Federal Circuit rightly recognized, the subsequent references to "such components" plainly refer back to "the components of a patented invention," which means all of the invention's components. A word modified by the demonstrative adjective "'such'" generally refers back to "the last antecedent, unless the sense of the passage requires a different construction."

*Sims Lessee* v. *Irvine*, 3 U.S. (3 Dall.) 425, 444 n.* (1799). Here, the last antecedent is the phrase "the components of a patented invention," and the statutory context does not require a different result. Indeed, this reading is confirmed by the fact that a "combination of *such components*" would "infringe [the patent] if such combination occurred within the United States"; this can only refer to all of the components of the patented invention—not merely what was supplied from the United States—because a "combination of such components" can only "infringe" a patent if *all* the components are present.

The language "where *such components* are uncombined in whole or in part" in § 271(f)(1) likewise refers to all the components of a patented invention, rather than the subset of components supplied from the United States. The statute thus requires that, at the time a defendant supplies matter from the United States, either *all* the components of a patented invention remain uncombined ("in whole") or some of those components remain uncombined ("in part"). Reading "such components" to refer exclusively to what is supplied from the United States could permit a defendant to avoid liability under § 271(f)(1) merely by combining the U.S.-supplied components together into a single component before shipping it abroad for further assembly, because the components in that instance would not be "uncombined." Congress cannot have intended that result.[8]

---

[8] The government argues (at 20 n.6) that liability could not be avoided by combining U.S.-supplied components before shipment because they would remain "uncombined" with the other components of the patented invention. But the government is merely reading words into the statute to compensate for the problems caused by deviating from the last antecedent rule. The complexity of such an interpretation is a powerful reason to reject it.

To be sure, Life Technologies correctly observes (at 20) that § 271(f)(2) uses the term "such component" to refer to the matter supplied from the United States. But that follows directly from the grammatical structure of § 271(f)(2), which differs from that of § 271(f)(1). Section 271(f)(2) prohibits the supply of "*any component* of a patented invention ... where *such component* is uncombined in whole or in part." Because the only possible antecedent is the phrase "any component of a patented invention," the phrase "such component" must refer to the component supplied from the United States. Consistent with that difference, § 271(f)(1) recognizes that "the combination of *such components*" (*i.e.*, all components of the invention) will "infringe the patent," while § 271(f)(2) contemplates that "*such component*" (*i.e.*, the component supplied from the United States) must "be combined" with other components in order to infringe.

Even if Life Technologies were correct that the subsequent references to "components" in § 271(f)(1) referred to the matter supplied from the United States, the use of the plural would not be dispositive. The Dictionary Act sensibly provides that the use of a plural noun generally encompasses the singular. 1 U.S.C. § 1. In this case, Congress used the plural "components" throughout the remainder of § 271(f)(1) for a clear reason: to account for the possibility of a defendant supplying "all" of the components from the United States. It almost certainly would have done so even if the statute simply prohibited the supply of "one or more of the components of a patented invention." The only alternative drafting option would require Congress to use *both* the singular and the plural—*i.e.*, to specify "where *such component is or such components are* uncombined in whole or in part." But that sort of rigid and cumber-

some drafting is exactly the problem the Dictionary Act is meant to avert. *Northern Ill. Serv. Co.* v. *Perez*, 820 F.3d 868, 870 (7th Cir. 2016) (Easterbrook, J.) ("Statutes and regulations are long enough as they are without forcing drafters to include both the singular and the plural every time."); *cf. Ali*, 552 U.S. at 221 ("We have no reason to demand that Congress write less economically and more repetitiously."). The use of the plural noun "components" in § 271(f) therefore does not require Life Technologies' rigid, multiple-component rule and does not preclude a finding of liability based on the supply of a single important or essential component.

### B. The History And Purpose Of Section 271(f) Support A Case-Specific Factual Analysis

All agree (Pet. Br. 5; U.S. Br. 22-23) that Congress enacted § 271(f) to "close a loophole" identified by this Court in *Deepsouth Packing Co.* v. *Laitram Corp.*, 406 U.S. 518 (1972). 130 Cong. Rec. H10,522, H10,525 (Oct. 1, 1984). But Congress's response went beyond solely addressing the specific facts of *Deepsouth*. Rather, § 271(f) was intended to prevent defendants from deliberately circumventing U.S. patent law by shipping major components of patented inventions from the United States for assembly and use abroad.

In *Deepsouth*, the defendant manufactured the parts of a patented shrimp deveining machine in the United States, but did not assemble the parts into an infringing machine. Instead, the defendant packaged the unassembled parts into boxes and exported them to customers abroad. *Deepsouth*, 406 U.S. at 524 & n.6. The defendant candidly acknowledged that its conduct was intended to evade the limitations of U.S. patent law. *Id.* at 523 n.5. This Court held that the defendant

could not be found liable for patent infringement because the plaintiff's combination patent protected only "the operable assembly of the whole and not the manufacture of its parts." *Id.* at 528.

*Deepsouth* thus revealed a gap in U.S. patent protection: A defendant was free to export unassembled components of a patented invention, *intending* that those components be assembled into an infringing product abroad. The *Deepsouth* dissent recognized that the majority's decision rewarded "the very iniquitous and evasive nature of Deepsouth's operations." 406 U.S. at 533 (Blackmun, J., dissenting). Heeding this Court's signal that a "clear congressional indication" would be necessary in order to prohibit this type of conduct, *id.* at 532, Congress enacted § 271(f), 130 Cong. Rec. at H10,525; *see also* S. Rep. No. 98-663, at 2-3 (1984).

As originally proposed, § 271(f) would have prohibited a party from supplying "the *material components* of a patented invention" from the United States if the party "intend[ed] that such components will be combined outside of the United States." *Patent Law Improvements Act: Hearing on S. 1535 and S. 1841 Before the S. Subcomm. on Patents, Copyrights and Trademarks of the S. Comm. on the Judiciary*, 98th Cong. 2-3 (1984) ("*1984 Hr'g*") (emphasis added); *see also* 129 Cong. Rec. S9005 (June 23, 1983) ("[T]he bill also contains a provision to assure that a product patent cannot be circumvented by manufacturing the material components of the product within the United States, then assembling them and selling the finished product abroad."). From the beginning, then, Congress's attention was on the *importance*—not the number—of the components supplied from the United States.

At a Senate hearing, the Assistant Secretary and Commissioner of Patents and Trademarks, Gerald J. Mossinghoff, presented the United States' position on the bill. At first, Commissioner Mossinghoff suggested that the supply of components from the United States should only give rise to infringement liability if the components were "made especially for use in the infringement of a patent" and *not* staple articles of commerce. *1984 Hr'g* 22. The bill's sponsor, Senator Mathias, pressed him, asking whether a defendant should be able to send staple articles of commerce abroad with specific instructions explaining how to assemble them into an infringing product. *Id.* Commissioner Mossinghoff agreed that situation would be "a closer call" and proposed that Congress address the two scenarios separately, incorporating two existing principles of patent law—contributory infringement and active inducement—from § 271(c) and (b), respectively. *Id.* 22-23. On the one hand, a defendant could be liable for supplying a component especially adapted for use in the invention because exporting such a component is, in effect, a type of contributory infringement. *Id.* On the other hand, even a defendant "selling a staple article in commerce" could be liable as an infringer if it "actively induce[d] infringement abroad." *Id.*; *see also id.* 23 ("Perhaps you could take the wording of both 271(b) and 271(c) in the new section.").

Congress did exactly that. Senator Mathias introduced an amendment that revised the bill to incorporate the principles codified in § 271(b) and (c). 130 Cong. Rec. S14,446 (Oct. 11, 1984). Section 271(f)(1) drew upon the concept of "active inducement" from § 271(b). 130 Cong. Rec. at H10,525-10,526 ("The term 'actively induce' is drawn from existing subsection 271(b) of the patent law[.]"). Meanwhile, § 271(f)(2)

drew upon principles of contributory infringement from § 271(c) by prohibiting the supply of any component of a patented invention that is "'especially made or especially adapted for use [in the invention] and not a staple article or commodity of commerce.'" *Id.* (explaining that § 271(b) and (c) served as the models for § 271(f)(1) and (2)).

As this history makes apparent, Congress nowhere suggested that liability under § 271(f)(1) depended on counting the number of components shipped abroad. Rather, Congress intended to prohibit the supply of even a single important component with non-infringing uses where the defendant supplied the component with the specific intent required for active inducement. *See infra* pp. 34-35. Life Technologies and the government err in suggesting that Congress was only concerned about domestic producers shipping entire unassembled products (*i.e.*, all or most of the components) abroad. In fact, Congress wanted to foreclose obvious, intentional efforts by competitors to evade U.S. patent protection, recognizing that the "subterfuge ... allowed under the *Deepsouth* interpretation of the patent law weakens confidence in patents among businesses and investors." S. Rep. No. 98-663, at 3; *see also* 130 Cong. Rec. H12,231 (Oct. 11, 1984) (under the bill, "a product's patent *cannot be avoided* through the manufacture of component parts within the United States for assembly outside the United States" (emphasis added)); 130 Cong. Rec. at H10,529; 129 Cong. Rec. E5777, E5778 (Nov. 18, 1983).

To address this concern, Congress deliberately enacted a law that was broader in scope than necessary to close the *Deepsouth* loophole: *Deepsouth* involved the supply of *all* constituent parts from the United States, yet § 271(f) indisputably covers situations where something less than all is supplied. *Microsoft Corp.* v. *AT&T*

*Corp.*, 550 U.S. 437, 457-458 & n.18 (2007). Life Technologies and the government acknowledge that § 271(f) is not confined to *Deepsouth*'s facts, but their only response is that a statute prohibiting the supply of "all" components would have allowed a supplier to "avoid[] liability by supplying all but one of the components to the foreign assembler." U.S. Br. 23; *see also* Pet. Br. 35. But neither Life Technologies nor the government cites any authority for the argument that the "substantial portion" language was intended solely to prevent that situation. Had that been Congress's exclusive concern, the natural ways to address it would have been to prohibit the supply of "all or most of the components," "all or a large number of the components," "all or nearly all of the components," or "all or a large percentage of the components." Congress chose none of those.

The legislative history also negates the inferences Life Technologies and the government seek to draw by comparing § 271(f)(1) and (2). As that history demonstrates, there was a very simple reason why Congress used the singular "component" in § 271(f)(2) but not in § 271(f)(1): Section 271(c), which served as the model for § 271(f)(2), is also phrased in the singular.

The history likewise makes clear that § 271(f)(2) is not, as Life Technologies contends (at 19), the *exclusive* avenue for imposing liability based on the supply of a single component. There is considerable overlap between inducement and contributory infringement—the principles on which § 271(f)(1) and (2) were based. *See, e.g.*, *Metro-Goldwyn-Mayer Studios Inc.* v. *Grokster, Ltd.*, 545 U.S. 913, 942 (2005) (Ginsburg, J., concurring) (observing that the two categories of infringement "overlap," though "they capture different culpable behavior"). A domestic sale of a single, non-staple component may create liability both for inducement under

§ 271(b) and for contributory infringement under § 271(c). *See, e.g.*, *i4i Ltd. P'ship* v. *Microsoft Corp.*, 598 F.3d 831, 850-852 (Fed. Cir. 2010), *aff'd*, 564 U.S. 91 (2011); *Golden Blount, Inc.* v. *Robert H. Peterson Co.*, 438 F.3d 1354, 1360-1364 (Fed. Cir. 2006). It is thus unremarkable that supply of a single component could infringe under both provisions of § 271(f) if, in addition to being "especially made or especially adapted" for use in the patented invention, the component was sufficiently important to qualify as a "substantial portion" and was supplied in a manner that actively induced infringement. The disjunction Life Technologies and the government seek to create between § 271(f)(1) and (2) ignores the historical overlap of § 271(b) and (c).

Finally, Life Technologies (at 23) and the government (at 18) invoke two footnotes in this Court's *Microsoft* decision as support for their purely quantitative rule. Observing that § 271(f)(1) and (2) "differ, among other things, on the quantity of components that must be 'supplie[d] ... from the United States,'" the Court remarked that § 271(f)(2) "applies to the export of even a single component" under certain circumstances. *Microsoft*, 550 U.S. at 454 nn.16, 18. All agree (Pet. Br. 23; U.S. Br. 18) that these statements are dicta. The Court in *Microsoft*, as Life Technologies concedes (at 23-24), "did not consider the issue" of whether exporting a single important component could give rise to liability under § 271(f)(1). This Court has refused to rely upon "ambiguous comment[s] ... made without analysis in dicta" in its prior decisions. *Pacific Operators Offshore, LLP* v. *Valladolid*, 132 S. Ct. 680, 688 (2012). In any event, the Federal Circuit properly recognized that *Microsoft*, read in full, "tends to support the conclusion that § 271(f)(1) may apply when a single 'component' is involved," because this Court twice used the singular

"component" when referring to what must be supplied under *either* § 271(f)(1) or (2). Pet. App. 31a-32a; *see Microsoft*, 550 U.S. at 454 n.16 ("Paragraph (2), *like (1)*, covers only '*a component*' amenable to 'combination.'" (emphases added)); *id.* ("Paragraph (2), *like (1)*, encompasses only the 'suppl[y] ... from the United States' of 'such *[a] component*' as will itself 'be combined outside of the United States.'" (emphases added)).

For all these reasons, the Federal Circuit correctly rejected Life Technologies' request to hold, as a matter of law, that supplying a single component can *never* give rise to liability under § 271(f)(1). Of course, judgment as a matter of law may be appropriate if a particular component is unimportant to the patented invention and no reasonable jury could conclude it amounts to a "substantial portion" of the invention's components under § 271(f)(1). But that determination must be made case by case, after careful consideration of the record. Where, as here, there is sufficient evidence that a component is important enough to be a "substantial portion of the components" of the patented invention, the jury should be left to decide that issue.

In this case, the jury's decision was simple: Life Technologies' own witness conceded at trial that *Taq* polymerase was a "'main' and 'major' component[]" of the accused kits, and there was ample other evidence of substantiality. *Supra* pp. 8-9. Juries may in other cases consider a wide range of factors in determining whether a component is sufficiently important to be a "substantial portion": the component's function relative to the patented invention; the component's economic cost and value; its novelty within the industry; the extent to which the component is featured or discussed in materials promoting the invention; whether it is necessary for the invention to function; and any other

relevant evidence of its significance to the invention as a whole. Life Technologies' strictly numerical rule requires rejecting *any* consideration of importance whatsoever. This categorical rejection cannot be justified by the text, history, or purpose of § 271(f).

## II. THE FEDERAL CIRCUIT'S CASE-SPECIFIC FACTUAL INQUIRY REFLECTS CONGRESSIONAL INTENT AND SOUND POLICY

### A. The Specific Intent Required For Active Inducement Protects Innocent Suppliers By Ensuring That Section 271(f) Reaches Only Culpable Actors

Life Technologies repeatedly suggests that the Federal Circuit's decision exposes the manufacturer of "a single, commodity component" to "worldwide" liability. Pet. Br. i; *see id.* 13, 29, 35. But Life Technologies' formulation of the issue omits a crucial limitation on liability—the defendant's mental state. Life Technologies focuses on the required act (supply of "a substantial portion of the components"), but neglects the specific intent required for liability ("in such a manner as to *actively induce* the combination ... in a manner that would infringe"). 35 U.S.C. § 271(f)(1) (emphasis added). Section 271(f)(1)'s dual requirement—of both domestic supply of a substantial portion of the components and inducement with knowledge that the combination practices the patent—dispenses with Life Technologies' purported concern (at 5) that the supply of "common and useful" components may lead to "unpredictable" liability.

As explained above, when Congress enacted § 271(f)(1), it expressly drew the term "actively induce" from § 271(b). *Supra* p. 29. Accordingly, "actively induce" requires the same mental state in both provi-

sions—namely, "[w]hen a person *actively induces* another to take some action, the inducer obviously knows the action that he or she wishes to bring about." *Global-Tech Appliances, Inc.* v. *SEB S.A.*, 563 U.S. 754, 760 (2011) (emphasis added). "The inducement rule ... premises liability on purposeful, culpable expression and conduct[.]" *Grokster*, 545 U.S. at 937. Thus, liability for inducement under § 271(f)(1) requires knowledge of the patent and an intent that the domestically supplied components be combined into the patented invention. *See Global-Tech*, 563 U.S. at 765-766; *Commil USA, LLC* v. *Cisco Sys., Inc.*, 135 S. Ct. 1920, 1926-1928 (2015).

In the § 271(b) context, liability may be premised on a variety of acts that encourage infringement but do not involve tangible participation in the infringement beyond encouragement. For example, defendants may be liable for designing an infringing product, *Water Techs. Corp.* v. *Calco, Ltd.*, 850 F.2d 660, 668 (Fed. Cir. 1988); instructing a third party to build one, *Fuji Photo Film Co.* v. *Jazz Photo Corp.*, 394 F.3d 1368, 1378 (Fed. Cir. 2005); directing or instructing a third party to use a product in an infringing manner, *Insituform Techs., Inc.* v. *CAT Contracting, Inc.*, 385 F.3d 1360, 1377-1378 (Fed. Cir. 2004); *Toshiba Corp.* v. *Imation Corp.*, 681 F.3d 1358, 1365 (Fed. Cir. 2012); or advertising an infringing use, *Chiuminatta Concrete Concepts, Inc.* v. *Cardinal Indus., Inc.*, 145 F.3d 1303, 1311-1312 (Fed. Cir. 1998).

Congress narrowed the inducement rule in § 271(f)(1) somewhat by identifying a specific culpable act that must occur in the United States—namely, supply of "all or a substantial portion of the components of a patented invention." But, as in § 271(b), the inducement requirement provides the primary safeguard

against liability. The question of what was supplied from the United States is relevant only when a party has knowledge of the patent and induces the combination of all components abroad, knowing that the combination will practice the patented invention. It is accordingly unnecessary to contort the meaning of "all or a substantial portion" to pursue Life Technologies' policy goals. Life Technologies and the government ignore the statute's baseline requirement of a culpable mental state in their effort to justify a crabbed reading of the required activity of domestic supply.

Congress's deliberate decision to model § 271(f)(1) after § 271(b) undermines the contention that Congress used the phrase "substantial portion" in § 271(f)(1) to prohibit the "functional equivalent of manufacturing" or to avoid circumvention of a hypothetical statute that required "all" components to be supplied. U.S. Br. 23; Pet. Br. 35; *supra* pp. 29-32. Congress's starting point was not a statute that covered the supply of "all" components, but rather the inducement rule of § 271(b), which does not require the inducer to supply *any* components. *Supra* p. 29. Congress then added the requirement that a defendant supply "all or a substantial portion" of the components. Even viewed in quantitative terms, Congress was counting up from zero, not down from 100%. That legislative history undercuts the argument Congress was focused on the number of components to the exclusion of their relative importance.

The intent requirement in § 271(f)(1) also distinguishes Life Technologies' attempted analogy (at 36) to the doctrine of equivalents. This Court has squarely held that "intent plays no role in the application of the doctrine of equivalents." *Warner-Jenkinson Co.* v. *Hilton Davis Chem. Co.*, 520 U.S. 17, 36 (1997). To be sure,

the doctrine establishes liability for copyists who make only minor changes to a patented product or process, but it requires "the absence of substantial differences" between the accused product or process and the patent *because* it is an expansion of strict liability for direct infringement under § 271(a). *Id.* at 34.[9]

The specific intent requirement in § 271(f)(1) also dispenses with Life Technologies' claim (at 39) that the Federal Circuit's decision may "restrict the free flow of staple articles of commerce." Component manufacturers are free to ship their products around the world as they wish, so long as they do not *intend* their exports to be combined into an invention that they *know* is protected by a U.S. patent and take steps to *induce* that combination.

Without any support or evidence, Life Technologies suggests (at 37) that the Federal Circuit's decision will lead to the export of U.S. jobs because companies will outsource manufacturing to avoid patent liability. This fear is unfounded for at least two reasons.

First, liability under § 271(f)(1) is uncommon—only rarely does a defendant meet the specific elements of both domestic supply of a "substantial portion" *and* the specific intent required for active inducement. Though Life Technologies and the government decry the supposedly broad ruling of the Federal Circuit, they point to no evidence of increased litigation, let alone liability, under § 271(f)(1) in the nearly two years since the court's decision.

Second, whatever incentive to outsource there may be was created by § 271(f)(1) in the first place. By es-

---

[9] Additionally, Life Technologies' analogy to the doctrine of equivalents finds no support in the legislative history.

tablishing liability for those who supply a "substantial portion" of the components of a patented invention and actively induce their combination into the patented invention abroad, Congress necessarily created *some* incentive for manufacturers to move *all* of their manufacturing overseas, if possible.[10] For example, the enactment of § 271(f) would have forced Deepsouth to halt its domestic operations or face liability. But this is nothing new. Anyone may take a product that is subject only to a U.S. patent and, by moving manufacturing overseas, make an exact replica abroad without fear of U.S. liability. *Deepsouth*, 406 U.S. at 531. Congress accepted that risk, however, because it determined that domestic companies like Deepsouth were more likely to cease infringement than move production overseas, resulting in increased sales (or licensing revenue) for domestic patent owners. Memorandum from Senator Mathias to Members of the Committee on the Judiciary 2 (Sept. 27, 1984) (predicting that § 271(f) would not cause "wholesale movement of manufacturing facilities offshore" because, among other things, the "prospect is fraught with so much uncertainty, in terms of political and economic stability and attracting qualified personnel," and companies "usually have their principal market in the U.S. and cannot afford to move their manufacturing op-

---

[10] This potential impact of § 271(f) was understood long before the Federal Circuit's decision in this case. Indeed, the two principal articles on which Life Technologies relies (at 37-39) for its policy arguments were published many years before this case. Farrand, *Territoriality and Incentives Under the Patent Laws: Overreaching Harms U.S. Economic and Technological Interests*, 21 Berkeley Tech. L.J. 1215, 1277 (2006); Chisum, *Normative and Empirical Territoriality in Intellectual Property: Lessons from Patent Law*, 37 Va. J. Int'l L. 603, 607 (1997). The risks that these scholars identify have existed since § 271(f) was enacted in 1984, but Congress has not seen fit to amend the statute.

eration into a developing country merely to skirt a U.S. patent").

Congress's principal concern was not with protecting companies that wanted to outsource portions of their operations as part of "supply chain management systems" that have developed "since Section 271 was enacted." Agilent Br. 5. Instead, Congress was mainly concerned that too little patent protection was leading to a crisis of innovation in the United States. Congress determined that § 271(f) would maintain "confidence in patents among businesses and investors" by establishing liability for opportunistic, culpable actors—and that increasing patent protection would encourage domestic research and investment. S. Rep. No. 98-663, at 3.

Far from suggesting expansive or unpredictable liability, the facts of this case nicely demonstrate the intended and appropriate reach of § 271(f)(1) to a culpable actor that unquestionably knew of the patent, supplied an important portion of the patented invention from the United States, and intended that the domestically supplied portion be combined into the patented invention. Life Technologies was plainly aware of the Tautz patent—it was the beneficiary of a license that permitted it to practice the patent, though it chafed under the license's limitation to certain fields. *Supra* pp. 6-7. Life Technologies admitted that it supplied *multiple* components from the United States for three of its best-selling Identifiler products. *Supra* p. 9. Nor does Life Technologies contest that it supplied at least *Taq* polymerase from the United States for all accused kits, conceding that this component was a "'main' and 'major'" component. Pet. App. 34a. Finally, Life Technologies was indisputably aware of the intended combination—it outsourced the assembly of infringing kits to its own facility abroad and then sold them around the world.

*Id.*; Pet. Br. 6. This is precisely the type of intentional conduct that § 271(f) was intended to capture.

### B. A Strictly Quantitative Rule Would Lead To Absurd And Arbitrary Results

Life Technologies and the government both advocate purely quantitative rewrites of the statutory text. Pet. Br. 4 ("a large percentage closely approximating all"); U.S. Br. 12 ("all or something close to all"). These atextual definitions would lead to absurd and arbitrary results Congress could have never intended.

For example, under these strict, purely quantitative approaches, a defendant who ships several trivial components of a patented invention could be liable under § 271(f)(1), but a defendant who ships one particularly important component and specifically intends to induce the combination of the entire invention would never be liable if the component had non-infringing uses. Similarly, three domestic companies could enter into an agreement whereby each supplies only one or two of a patent's five components for assembly—with the express intent of making the patented invention abroad—with no fear of liability. Congress could have hardly intended to sanction such inequitable results. *Griffin* v. *Oceanic Contractors, Inc.*, 458 U.S. 564, 575 (1982) ("[I]nterpretations of a statute which would produce absurd results are to be avoided if alternative interpretations consistent with the legislative purpose are available.").

Without offering even one example, both Life Technologies and the government complain that the Federal Circuit's fact-specific inquiry prevents companies from determining in advance whether their domestic supply of an important component will lead to liabil-

ity. Pet. Br. 5; U.S. Br. 24-25. Once again, this argument overlooks the statutory scienter requirement. The only companies at risk are those that know of a patent and induce the assembly of the patented invention abroad with the requisite intent. Adding a further "bright-line rule" regarding the number of components that must be supplied might be "easier to follow than a standard that requires the exercise of judgment in the light of all the circumstances. But ease of application alone is not an excuse for ignoring the purposes of the [statute] and Congress' policy decisions." *Basic Inc.* v. *Levinson*, 485 U.S. 224, 236 (1988). Some degree of uncertainty always inheres in the many factual inquiries that our judicial system commits to a jury.

In any event, the supposed predictability and precision of Life Technologies' purely quantitative rule is a mirage. The only certainty is that fewer culpable actors will be liable for infringement, contrary to congressional intent. *Cf. Basic*, 485 U.S. at 236 (recognizing that a bright-line rule "must necessarily be overinclusive or underinclusive"); *Matrixx Initiatives, Inc.* v. *Siracusano*, 563 U.S. 27, 39 (2011). The government, for its part, concedes (at 26) that replacing a case-specific inquiry with a strictly quantitative rule described as "'nearly all'" or "'virtually all'" adds no precision and "will present some line-drawing problems." That is a manifest understatement. The government acknowledges (*id.*) "the existence of close cases," such as whether 75% of the components is enough, but it offers no suggestion of how a jury (or court) would resolve such cases under its purely quantitative approach. The government likewise recognizes (*id.*) that "a rigid numerical threshold" would be "even clearer," but declines to specify "any such rigid threshold" because it "would invite evasion ... of a statute that is de-

signed to prevent evasion." Nevertheless, a purely quantitative rule does both of the things to which the government objects: It both encourages circumvention and creates uncertainty. Domestic producers will rest assured that supply of up to half of an invention's components (including the most valuable, profitable, and important components) is permissible—a clear threshold that invites evasion. But domestic producers will face uncertainty beyond that point.[11]

The case-specific rule adopted by the Federal Circuit avoids these inequitable and arbitrary results by allowing the factfinder to consider both the quantitative and qualitative importance of the domestically supplied components in context. The court simply held that "there are circumstances in which a party may be liable under § 271(f)(1) for supplying ... a single component for combination outside the United States," and that "based on the *facts of this particular case*," a reasonable jury could have found Life Technologies liable. Pet. App. 28a.

Life Technologies (at 38) and the government (at 24) seize on the Federal Circuit's statement that the kit claimed in the Tautz patent "would be inoperable" without *Taq* polymerase to suggest that the court adopted an unduly expansive definition of substantiali-

---

[11] Practically speaking, the government is only kicking the can down the road. If the "substantiality" inquiry is strictly quantitative, as the government insists, then it will not be long before lower courts are forced to decide (on summary judgment, in jury instructions, or in post-verdict motions) whether 60%, 70%, or 75% of an invention's components constitutes a "substantial" portion. The government may have the luxury of not choosing a fixed threshold now, but courts deciding real cases will not. The result will be the "rigid" numerical rule that the government recognizes (at 26) is "not textually plausible."

ty that will govern future cases. Pet. App. 34a. But the court did no such thing. It merely reviewed the jury's verdict with the necessary deference and determined that the verdict was adequately supported. Evidence showed that *Taq* polymerase is essential to the *polymerase* chain reaction at the heart of the Tautz patent, and that Life Technologies' kits therefore cannot perform their primary function—amplification of DNA sequences—without it. Those are undoubtedly relevant facts. Life Technologies' own witness also conceded that *Taq* polymerase was a "'main' and 'major' component[] of the accused kits." Pet. App. 34a. And Promega's witnesses testified that *Taq* polymerase was a "critical component," and that it "make[s] the new DNA" in the amplification process, which is "a key step in the technology." JA136-137, 146. All of this evidence was before the jury.

The court of appeals' correct and narrow holding was that the jury could have reasonably found, on the basis of such evidence, that *Taq* polymerase was important enough to the patented invention to constitute a "substantial portion" of its components. The government (at 24) faults the court for not explaining what "main" or "major" means. But those words were not devised by the court; they came from the testimony of Life Technologies' witness. JA160; Pet. App. 34a. The court merely recognized that Life Technologies' concession about importance was evidence from which a reasonable jury could determine that *Taq* polymerase formed a substantial portion of the kits' components. Pet. App. 33a-34a.

## III. The Case-Specific Inquiry Adopted By The Federal Circuit Concerns Only Domestic Conduct And Does Not Implicate The Presumption Against Extraterritoriality

The presumption against extraterritoriality is not implicated here. When Congress enacted § 271(f), it focused on domestic suppliers circumventing U.S. patents by furnishing, for foreign assembly, "a substantial portion of the components" of the patented invention. *Microsoft*, 550 U.S. at 444-445. The "'focus' of congressional concern" was the regulation of domestic suppliers. *Morrison* v. *National Austl. Bank Ltd.*, 561 U.S. 247, 266 (2010) (quoting *EEOC* v. *Arabian Am. Oil Co.*, 499 U.S. 244, 255 (1991)). The Federal Circuit's decision carries no risk of imposing liability for foreign activities because, under any test, Life Technologies' infringing shipments of *Taq* polymerase occurred in the United States. While Life Technologies and the government hypothesize that the decision will impact global commerce, both concede that such an impact was part of Congress's chosen scheme. In any event, adopting an arbitrary numerical threshold will not minimize that impact any more than the case-specific inquiry undertaken by the court below.

A. By its plain terms, the "all or a substantial portion" language governs what must be "supplied ... from the United States"—not assembly, sale, or use abroad. That other components may be sourced from other countries does not convert § 271(f)'s concern with U.S. suppliers into an extraterritorial regulation of foreign conduct. Moreover, whether the foreign recipient actually makes the patented invention abroad is not necessarily relevant. *Waymark Corp.* v. *Porta Sys. Corp.*, 245 F.3d 1364, 1367-1368 (Fed. Cir. 2001). What matters is the domestic supplier's knowledge of the patent,

domestic supply activities, and inducement of the intended combination.

This Court has adopted a "two-step framework for analyzing extraterritoriality issues" that compels the conclusion that the presumption is not implicated here. *RJR Nabisco, Inc.* v. *European Cmty.*, 136 S. Ct. 2090, 2101 (2016). That framework asks: (1) "whether the statute gives a clear, affirmative indication that it applies extraterritorially"; and, if not, (2) whether "the conduct relevant to the statute's focus occurred in the United States." *Id.* The second step of *RJR Nabisco* is dispositive here: Although § 271(f)(1) addresses inducement of foreign combinations, the statute does not purport to "govern[] the manufacture and sale of components of patented inventions in foreign countries." *Microsoft*, 550 U.S. at 456. Rather, Congress "[f]ocus[ed] its attention on" U.S. suppliers taking steps in the United States to evade the rights of U.S. patent holders. *Id.* at 444. The statute's resulting focus is the domestic supply of components with an intent to induce infringement. As is uncontested, Life Technologies' infringing shipments of *Taq* polymerase all occurred in the United States with knowledge of the Tautz patent and the intended combination into a kit that practiced that patent. This case consequently "involves a permissible domestic application even if other conduct occurred abroad." *RJR Nabisco*, 136 S. Ct. at 2101.

Unable to identify any foreign conduct regulated by the Federal Circuit's interpretation of the statute, Life Technologies (at 24, 27) and the government (at 28-29) rely on this Court's statement that "§ 271(f) is an exception to the general rule that our patent law does not apply extraterritorially," and that the presumption therefore "remains instructive in determining the *extent* of the ... exception." *Microsoft*, 550 U.S. at 442,

456. As the reasoning of *Microsoft* makes clear, however, the presumption exists to resolve statutory ambiguity involving liability for *foreign* conduct. The Court's concern in that case stemmed from the plaintiff's effort to establish liability for *foreign-made* copies of software code that was originally exported from the United States. In closing the *Deepsouth* loophole, Congress "did not home in on" the supply of prototypes that could be easily replicated, but on "physical, readily assemblable parts." *Id.* at 457, 458. Hence, as the Court explained, the presumption against extraterritoriality "tugs strongly against" construing "'supplie[d] ... from the United States'" to encompass foreign copying. *Id.* at 455; *see also id.* at 456 ("AT&T's reading ... 'converts a single act of supply from the United States into a springboard for liability each time a copy ... is subsequently made [abroad.]'"). Under the plaintiff's interpretation of § 271(f) in *Microsoft*, "the conduct relevant to the statute's focus" took place almost entirely outside the United States. *RJR Nabisco*, 136 S. Ct. at 2101.

The question presented in this case—whether a defendant can be liable under § 271(f)(1) for "supplying a single, commodity component of a multi-component invention *from the United States*," Pet. i (emphasis added)—does not implicate these concerns. The actionable conduct here is domestic, and there is a direct, one-to-one relationship between each component shipped and every kit assembled abroad. Life Technologies incorrectly asserts (at 27) that its foreign conduct is nonetheless regulated by § 271(f) because it was found liable for foreign sales of kits assembled using partly foreign-sourced components. But liability attached only to Life Technologies' knowing supply of the *Taq* polymerase in a manner that actively induced the kits' assembly

abroad; liability did not attach to Life Technologies' foreign manufacture or sales.

To be sure, Life Technologies' added role as the U.K. assembler and seller of the resulting unlicensed kits made its knowing infringement as a U.S. supplier more obvious and egregious. But Life Technologies' global sales are relevant only to the measure of damages—namely, Promega's lost profits. As the jury properly found, Life Technologies' "worldwide sales were attributable to infringing acts in the United States." Pet. App. 11a. Absent that U.S. infringement, Promega, rather than Life Technologies' U.K. subsidiary, would have sold many more of its U.S. patented kits to the same customers worldwide. Dist. Ct. Dkt. 530, at 13-14.

Life Technologies' approach, if accepted, would turn the presumption against extraterritoriality on its head, turning *U.S. law* into "a craven watchdog" that "retreat[s] to its kennel whenever *some* [foreign] activity is involved in the case." *Morrison*, 561 U.S. at 266. This runs counter to the text of § 271(f), which explicitly imposes liability for U.S. exports in contemplation of foreign assembly. *See RJR Nabisco*, 136 S. Ct. at 2101 ("If the conduct relevant to the statute's focus occurred in the United States, then the case involves a permissible domestic application even if other conduct occurred abroad[.]"). Life Technologies' reliance on the presumption is an attempt to distract from its domestic infringement and to train this Court's attention on foreign activities that are not § 271(f)'s focus, were not the basis of the jury's finding of liability, and are not reached or implicated by the Federal Circuit's decision.

Life Technologies asserts (at 31) that the Federal Circuit's decision "could also lead to tensions and trade

conflicts with foreign sovereigns." But neither Life Technologies nor the government explains how § 271(f)'s application to Life Technologies' U.S. exports will create the type of conflict the presumption serves to avoid—"the international discord that can result when U.S. law *is applied to conduct in foreign countries*," *RJR Nabisco*, 136 S. Ct. at 2100 (emphasis added).

Life Technologies' attempt (at 30-31) to manufacture a potential conflict between European Union antitrust law and the Federal Circuit's decision is baseless. The E.U. cases cited by Life Technologies (at 31) concern special antitrust considerations that arise in the context of so-called standard-essential patents—patents that must be practiced in order to comply with an interoperability standard. *See* Case C-170/13, *Huawei Techs. Co.* v. *ZTE Corp.* ¶ 21 (July 16, 2015); Case AT.39985, *Motorola* ¶¶ 98-99 (Apr. 29, 2014). The Tautz patent is not standard-essential. Moreover, the cases concern the rights of European patent holders seeking remedies for infringement in Europe—they do not suggest European concern about remedies sought on U.S. patents in U.S. courts for a component shipped from U.S. soil. Nor do they even suggest any conflict in the actual policies of the European Union and the United States.[12]

---

[12] *Huawei Technologies* and *Motorola* both involved standard-essential patents. To avoid potential anti-competitive use to exclude others from the market, these patents are often subject to special conditions that require patent owners to license them on "fair, reasonable, and non-discriminatory" terms. DOJ & PTO, *Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments* 1 & n.1, 5 (Jan. 8, 2013). In recent years, domestic and foreign courts and competition authorities alike have voiced concerns about the power of a

There is no dispute that foreign law governs foreign patent rights, including "the manufacture and sale of components of patented inventions in foreign countries." *Microsoft*, 550 U.S. at 456. Section 271(f) embodies *Congress's* policy judgment and applies it to U.S. activity. Its application to Life Technologies' U.S.-based supply of *Taq* polymerase does not trench on foreign law or impair foreign sovereigns' "'different policy judgments about the relative rights of inventors, competitors, and the public.'" *Id.* at 455. Here, unlike in *Microsoft*, there is no "impermissible extraterritorial application." *RJR Nabisco*, 136 S. Ct. at 2101. As a result, the presumption against extraterritoriality cannot nudge, much less "tug[]," in Life Technologies' favor. *Microsoft*, 550 U.S. at 455.

B. Even if the presumption did apply, it would not support Life Technologies' and the government's interpretation. As the government concedes (at 29), § 271(f)(1) *invariably* has "a practical impact on the activities of foreign assemblers," and Congress "intended" as much. *See also* Pet. Br. 26. The presumption is not a general policy to minimize impacts Congress expressly considered; it is "a canon of statutory construction" to avoid regulation of foreign conduct that was not Congress's "focus." *RJR Nabisco*, 136 S. Ct. at 2100; *cf. Microsoft*, 550 U.S. at 457-458. In any event, a strictly

---

standard-essential patent owner to seek injunctive relief as a hold-up tactic to demand a higher licensing fee or settlement in litigation. *Id.* 7-8 & n.15; *see also, e.g.*, *Apple Inc.* v. *Motorola, Inc.*, 757 F.3d 1286, 1331-1332 (Fed. Cir. 2014), *overruled on other grounds by Williamson* v. *Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015). Life Technologies has not identified any point of E.U.-U.S. contention on this issue, however, nor are these policy concerns at all implicated in this case.

quantitative rule is not demonstrably narrower even by Life Technologies' flawed measure.

Life Technologies' extraterritoriality argument ultimately boils down to an unsubstantiated assertion that a numerical test mitigates U.S. manufacturers' risk of liability and thus the effect on global commerce. That defies common sense. For example, on Life Technologies' interpretation, a U.S. manufacturer may be held liable for supplying multiple identical fasteners that hold together the outer housing of a device, but not for supplying a single processor that is the heart of the invention. Even a general policy to minimize interference with global commerce scarcely compels a statutory construction that permits liability for one commodity as opposed to the other based on contingencies of assembly rather than the function performed with respect to the underlying patent. Life Technologies' rigid numerical threshold would be a windfall for makers of processors because each device typically has only one. But it would impose a *greater* risk of liability for makers of minor components like fasteners whenever a single device requires many. Nothing in the statute or legislative history suggests Congress intended such an arbitrary scheme.

Life Technologies contends (at 32) that the Federal Circuit's rule is problematic because it "requires only an *in*substantial amount of domestic conduct to trigger regulation of a substantial amount of foreign conduct." First, this misses the point because only the defendant's domestic conduct is at issue, and the requirement that the defendant supply a "substantial portion" from the United States with specific intent is hardly "insubstantial." Second, the argument only makes sense if one assumes that all components have the same value, such that supplying two components from the United

States is always accompanied by less substantial foreign conduct than supplying one component from the United States. But the domestic supplier of a major or essential component who actively induces an infringing combination may play a much more substantial role than a supplier who furnishes several trivial components.

Life Technologies' and the government's neglect of qualitative significance actually has the potential to heighten § 271(f)(1)'s extraterritorial effects in situations involving U.S. exports of multiple components that are of trivial significance. A sound policy of minimizing the impact abroad would take into account *both* the relative importance and the quantity of the components supplied from the United States. Life Technologies' and the government's test categorically—and unnecessarily—excludes one. Again, nothing in the statute's text, history, or purpose suggests such an artificial limitation.

## IV. Even If Its Interpretation Were Correct, Life Technologies Would Not Be Entitled To Judgment As A Matter Of Law

The government states (at 27) that this case "comes to the Court on the assumption[] that ... petitioners are entitled to judgment as a matter of law unless the domestic supply of *Taq* polymerase alone is sufficient to trigger liability under Section 271(f)(1)." That is manifestly incorrect. Even if this Court were to adopt a new interpretation of § 271(f)(1), the most Life Technologies would be entitled to is a new trial.

First, the district court's grant of judgment as a matter of law depended on the erroneous premise that Promega had not quantified any damages from Life Technologies' infringing sales in the United States.

The court of appeals rejected that premise, noting that "Promega presented evidence to the jury showing sales of [Life Technologies'] accused kits in the United States." Pet. App. 35a (citing A6249-6268, 7031-7170, 7362-7744, 7906-8002); *supra* p. 9 & n.5. The court of appeals thus reinstated the judgment of infringement under § 271(a) and remanded for further proceedings on damages. Life Technologies has not challenged that ruling in this Court, and there is no basis for disturbing it.

Second, Life Technologies admitted that, for three of its best-selling Identifiler kits, it supplied *multiple* components from the United States. Specifically, its witness identified 10 primers supplied from the United States. *Supra* p. 9. Life Technologies now argues (at 9), for the first time in this Court, that "[t]he manufacture of Life Technologies' primer-mix component ... occurs in the United Kingdom." But that argument fails to view the facts in the light most favorable to the jury verdict. Fed. R. Civ. P. 50(a); *Patrick* v. *Burget*, 486 U.S. 94, 98 n.3 (1988).[13] Nor can it be reconciled with Life Technologies' admission that for the "Identifiler, Identifiler Direct and Identifiler Plus" kits, "two com-

---

[13] Among other things, Life Technologies' new argument cannot be reconciled with the plain language of claim 42 of the Tautz patent. The relevant claim element requires "at least one vessel containing a mixture of primers constituting *between 1* and 50 of [the] primer pairs." JA127 (emphasis added). The "component[] *of a patented invention*," 35 U.S.C. § 271(f)(1) (emphasis added), therefore comes into being with a single primer pair, and Life Technologies admittedly supplied multiple primers from the United States. Even assuming Life Technologies added more primers in the United Kingdom, it would not change the fact that it had already supplied the relevant "component of the patented invention" when it shipped the other primers from the United States.

ponents of the claimed invention (primers and PCR enzyme) were supplied from the U.S." A2303.

Indeed, Life Technologies expressly waived any argument under Rule 50 about insufficient evidence that it supplied "all or a substantial portion of the components of the patented invention" for those three kits. A6505 ("for the Identifiler Kit ... there is evidence that could go to the jury."); *supra* p. 9. There is no basis—or authority—to grant Life Technologies judgment as a matter of law on a point that it waived. *E.g.*, *Neely* v. *Martin K. Eby Constr. Co.*, 386 U.S. 317, 324 (1967) (where party that "ha[s] not moved for judgment [as a matter of law] in the trial court," an appellate court is "precluded from directing any disposition other than a new trial"); Promega C.A. Br. 36-41. Accordingly, the most Life Technologies can demand is a remand for a new trial, not entry of judgment, as the government erroneously suggests (at 27).[14]

A new trial is unnecessary, however, because the court of appeals' decision is correct. That decision respects the jury's role in determining, in light of all the relevant facts, whether a component supplied from the United States constitutes "a substantial portion of the components of a patented invention." The jury's determination of this issue was amply supported by the record here. And this Court should reject Life Technologies' request to set that verdict aside on the basis

---

[14] The sole reason for the district court's decision on the Identifiler kits was the incorrect assumption that Promega never quantified damages for those kits apart from worldwide sales on all kits. Even a brief glance at the record dispels that clear error. *E.g.*, A7180-7186, 7188-7192, 7196-7204, 9323-9324; Promega C.A. Br. 53-54.

of a rigid numerical rule that conflicts with § 271(f)'s text, history, and purpose.

## CONCLUSION

The judgment of the court of appeals should be affirmed.

Respectfully submitted.

MARK C. FLEMING
ERIC F. FLETCHER
JANINE M. LOPEZ
WILMER CUTLER PICKERING
HALE AND DORR LLP
60 State Street
Boston, MA 02109

SETH P. WAXMAN
*Counsel of Record*
THOMAS G. SAUNDERS
KEVIN M. LAMB
WILMER CUTLER PICKERING
HALE AND DORR LLP
1875 Pennsylvania Ave., NW
Washington, DC 20006
(202) 663-6000
seth.waxman@wilmerhale.com

OCTOBER 2016